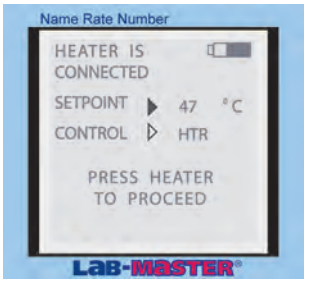
How to use the heater

1. To use the heater the line power must be connected to the Lab-Master. The device automatically detects if the power whether connected and will not allow access to the heater interface if it is not connected.
2. Press the Heater button to enter the heater screen menu.
3. If the heater is not connected the device displays the HEATER IS NOT CONNECTED enunciator. Connect the heater to proceed. The device automatically detects when the heater is connected.
4. In the heater screen menu you can select the SETPOINT temperature and the CONTROL method.
5. The SETPOINT temperature can be selected by pressing the right and left arrows. You may select any temperature between 1°C and 150°C. You may increment the values by 1°C or hold down the arrow key for scrolling by 10°C increments.
6. When the temperature probe is not connected the CONTROL option is limited to HTR. When the temperature probe is connected, the CONTROL options are HTR and PROBE which will be discussed in the next section.



How to heat a solution to a specified temperature

As an example let's assume that we want to heat a solution in the test tube to a temperature of 47°C. We will go through the procedure of how to do that. The procedure is then the same for any other solution temperature.

1. Turn on the Lab-Master and connect power, heater, and temperature probe.
2. Press the Heater button.
3. Scroll through the SETPOINT and select the temperature of 41°C.
4. Press Heater again to activate the CONTROL option.
5. Press the right arrow to select PROBE. (Note that the PROBE selection is not available if the temperature probe is not connected.)
6. Press Heater to exit
7. Press the Start/Stop button to start the experiment.
8. The display shows the following information:
   a. the actual solution temperature
   b. the desired solution temperature
   c. the instantaneous power that is applied to the heater
9. While running this experiment, remember to stir the solution gently and continuously and make sure you do not remove the temperature probe from the solution.